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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,629	04/01/2004	Philippe Bienvenu	03-RO-111; B5921US; 2269-	2835
7590 08/11/2008				
Bryan A. Santarelli				
GRAYBEAL JACKSON HALEY LLP				
Suite 350				
155 - 108th Avenue NE				
Bellevue, WA 98004-5973				
EXAMINER				
RUTLAND WALLIS, MICHAEL				
ART UNIT		PAPER NUMBER		
2836				
MAIL DATE		DELIVERY MODE		
08/11/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/817,629

Applicant(s)

BIENVENU ET AL.

Examiner

MICHAEL RUTLAND WALLIS

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-6 and 9-20 is/are rejected.
7) ☒ Claim(s) 7 and 8 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/S5108)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 6/2/08 with respect to claims 1-8 have been fully considered but they are not persuasive.

Applicant argues, Ngo nor Menniti teach a device for protecting a circuit against a polarity reversal of a connection to a D.C. power supply, the device comprising a first means for turning off a switch with a turn-off delay, and a second means for turning on the switch with a turn-on delay shorter than the turn-off delay, and further argues Ngo is related to a different field and would not operate if the voltage where a reverse polarity.

In response, Ngo teaches the use of circuitry for controlling power to a connected circuit. Ngo teaches the turning-on and turning-off by a controllable switch of the supplied power to the circuitry. The circuitry taught in Ngo is that of a fixed turn off delay and programmable (via Z1-Z3) turn on delay. Ngo does not contrast the delay times associated with switching operations of turning on and turning off. Menniti is cited to teach a means to trigger a switch when voltage is dropped to a reverse polarity and to illustrate the setting of a disconnection or turning off operation (via the connection of one or more Z2) when a voltage is dropped to a reverse polarity. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngo to program a delay(s) (select resistance or circuit element values) such that a shorter turn

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on delay is set in order to allow power to flow to the device quickly once the voltage has returned to normal.

In response, to applicant's argument that Menniti and Ngo is nonanalogous art and are from different fields, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Menniti uses language of negative overvoltages and Ngo recites under voltages both pertinent to the particular problem circuits being protected from abnormal voltages.

Applicant's arguments with respect to claims 9-20 have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ngo et al. (U.S. Pat. No. 6,525,515) in view of Menniti (U.S. Pat. No. 4,723,191)

With respect to claim 1, 3, 9-11, 13-20 Ngo teaches A device for protecting a circuit against a polarity reversal of a connection to a power supply, the device comprising: a controllable switch (items N1 or N40) interposed on said connection between a first terminal (see first ground "-" terminal exiting supply) of a first voltage of said power supply and a first terminal of said circuit (see first terminal of pluggable system); and first means (see for example UVLO connection of controller item 44) for turning-off the switch with a turn-off delay (formed with items R41 and R42) in the presence of a under voltage; and second means (items Z1-Z3) for turning on the switch with a turn-on delay, when the polarity is normal (power is good). Ngo does not teach the supply is a DC supply, the under voltage is a reverse polarity or the differences in the delay times. Ngo teaches only a general power supply and not the use of a DC type supply, however the use of DC powered computer systems are well known. Ngo does not teach sensing of the polarity the voltage, Ngo only teaches the under voltage is a minimum voltage level. Menniti (col. 2 lines 10-35) teaches a under voltage detection circuit where the under voltage is a negative polarity voltage level and triggering a turn-off response. Menniti further teaches the triggering is controlled by the connection of one or more circuit elements (Z2, see col. 5 line 1) in order to allow the setting of the triggering circuit. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngo to use a DC supply to power computer components which require DC input power and to set UVLO to a negative voltage polarity level in order to reduce damage to circuit components. Ngo teaches the turn on delay associated with the second means may be programmed or set (col. 5 line 55), however

makes no comparison to the delay for turning off. Menniti teaches the setting of the triggering circuit to turn off the in the presence of a reverse polarity. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngo to program a delay (select resistance or circuit element values) such that a shorter turn on delay is set in order to allow power to flow to the device quickly.

With respect to claim 2 Ngo teaches the delay associated (col. 2 lines 60-65) with turning off the passing of current is set to prevent anomalous switching due to transients.

With respect to claim 4 Ngo teaches said first means comprise a microcontroller (item 44) having an output controlling said switch.

With respect to claim 5 Ngo teaches the switch is a MOS transistor. Ngo does not teach the channel of the transistor is n-type. The use of N and P channel MOSFETs is well known to control the flow of current. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngo to use an N channel in order to correspond to the type of logic signals sent from the controller.

With respect to claim 6 and 12 Ngo teaches a resistor connected to the gate terminal of the switch via the control terminal. Ngo further teaches an embodiment wherein a first resistor (R2) connecting the gate (see Fig. 1) of the transistor to said first terminal of the circuit to be protected. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ngo to include the use of a resistor connected to the gate in order to provide a programmable delay value.

Allowable Subject Matter

Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: Ngo as modified by Menniti teach a device for protection against voltage polarity, however fails to further teach the use of a second resistor in series with a diode connects a terminal of the device connected to a second voltage of the D.C. power supply. At least this further limitation is not taught or rendered obvious by the prior art of record.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Sherry/
Supervisory Patent Examiner, Art Unit 2836

MRW